

AN ADDITIONAL LIST OF SOUTH AUSTRALIAN POLYZOA.

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Plate I.

Mr. Thomas D. Smeaton has recently sent to me for examination a large number of specimens of South Australian Polyzoa. The total number of species in the collection is 119, and of these 71 do not occur in the list recently contributed to the Society. They are mostly well-known Victorian forms, but several are of rare occurrence, and three have not previously been described.

The following is a list, with localities, of those not previously noticed :—

CLASS POLYZOA.

ORDER GYMNOLEMATA, *Allman*.

(INFUNDIBULATA, *Gervais*).

SUBORDER CHEILOSTOMATA.

FAMILY AETIDEÆ.

AETEA, *Lamx.*

A. dilatata, Busk. Robe.

FAMILY EUCRATEIDÆ.

DINETOPIA, *Busk*.

D. spicata, Busk. Robe.

FAMILY CHLIDONIIDÆ.

CHLIDONIA, *Savigny*.

C. Cordieri, Aud., sp. Kangaroo Island.

FAMILY CATENICELLIDÆ.

CATENICELLA, *Blainville*.

C. alata, Wyv. Thomson.

C. plagiostoma, Busk. Port Elliott.

C. formosa, Busk. Port Elliott.

C. gracilentia, McG. Robe.

C. carinata, Busk. Kangaroo Island.

C. delicatula, J. B. Wilson, sp.

CLAVIPORELLA, *McG.*

- C. geminata*, Wyv. Thomson, sp. Glenelg.
C. aurita, Busk, sp. Robe.

FAMILY CELLULARIIDÆ.

DIDYMIA, *Busk.*

- D. simplex*, Busk.

SCRUPOCELLARIA, *Van Beneden.*

- S. cyclostoma*, Busk.
S. ornithorhynchus, Wyv. Thomson. An imperfect fragment.

CANDA, *Lamx.*

- C. arachnoides*, Lamx. Brighton.

CABEREA, *Lamx.*

- C. Darwinii*, Busk. Encounter Bay ; Robe.
C. rudis, Busk. Robe.
C. grandis, Hincks. The specimens are mostly very rigidly calcified.

MENIPEA, *Lamx.*

- M. cyathus*, Wyv. Thomson. Robe.
M. tricellata, Busk, sp. Robe.

FAMILY SALICORNARIIDÆ.

CELLARIA, *Lamx.*

- C. hirsuta*, McG. Encounter Bay.

FAMILY BICELLARIIDÆ,

BICELLARIA, *Blainville.*

- B. tuba*, Busk. Encounter Bay,
B. gracilis, Busk. Robe.

FAMILY FLUSTRIDÆ.

CARBASEA, *Gray.*

- C. dissimilis*, Busk.

FAMILY MEMBRANIPORIDÆ.

PYRIPORA, *D'Orbigny.*

- P. polita*, Hincks, sp. Kangaroo Island.

ELECTRA, *Lamx.*

- E. multispinata*, Hincks, sp.
 (Membranipora pilosa, var. multispinata, *Hincks.*)

BATHYPORA, *McG.*

- B. (Membranipora) nitens*, Hincks.

MEMBRANIPORA, *Blainville*.

M. membranacea, Linn. sp. Brighton, Robe.

M. praelonga, n. sp. Fig. 1. Zoarium encrusting. Zoœcia opposite in regular longitudinal and transverse series, very large, much longer than broad, separated by narrow raised lines; upper extremity arched and thickened; no spines or processes.

This is an exceedingly delicate species, spreading as a thin film over the surface of a broad leaf of, seemingly, *Zostera*. The zoœcia are very regular in transverse and longitudinal rows, the separating walls being very slender. There are no spines or processes as in its nearest congener *M. membranacea*. A curious circumstance is that many of the longitudinal rows consist entirely of aborted zoœcia, which are of the same length as the others, but are narrower, destitute of mouth, and have the transverse separating partitions straight and very thin. In many of these there is a white shining fibrous bundle, the nature of which is not apparent; it may be parasitic.

Mr. Smeaton informs me that this was found at Wallaroo by Mr. O'Halloran.

M. corbula, Hincks. Robe.

AMPHIBLESTRUM, *Gray*.

A. argenteum, McG. (*Lepralia trifolium*, McG.)

A. cervicorne, Busk.

BIFLUSTRA, *D'Orbigny*.

B. jugalis, n. sp. Figs. 2 and 2a. Zoarium crustaceous. Zoœcia alternate, in regular lines, elongated, quadrate; margins thick, granular; upper margin thick, with a short blunt process at each end; anterior surface for a large extent strengthened by a very thin, slightly granular, calcareous layer.

Of this there is only a single small specimen. The anterior thickening of the surface is very indistinct, and I am not satisfied that it should not rather be referred to *Membranipora*.

FAMILY MICROPORIDÆ.

THAIROPORA, *McG*.

T. dispar, McG. Brighton.

DIPLOPORELLA, *McG*.

D. cincta, Hutton, sp. Brighton.

MICROPORA, *Hincks*.

M. coriacea, Esper., sp. Glenelg.

M. perforata, McG. Robe.

FAMILY STEGANOPORELLIDÆ.

STEGANOPORELLA, *Smitt.**S. magnilabris*, Busk, sp. Aldinga.

FAMILY CRIBRILINIDÆ.

HIANTOPORA, *McG.**H. ferox*, McG.

FAMILY MICROPORELLIDÆ.

MICROPORELLA, *Gray.**M. ciliata*, Linn., sp.*M. Malusii*, Audouin, sp.*M. diadema*, McG. Robe." var. *longispina*, McG. Semaphore.ADEONA, *Lamx.**A. albida*, Kirchenpauer, var. *avicularis*, McG.

FAMILY ESCHARIDÆ.

SCHIZOPORELLA, *Hincks.*

S. Maplestonei, McG. Figs. 4, 5, and 5a. Of this two marked forms occur, which might almost be considered as distinct species. In the typical form the zoëcia are rhomboidal, separated by narrow raised margins, the surface shining and perforated. The mouth is arched above, wider than high. The lower lip straight, with a small rounded sinus. The peristome above is slightly thickened. On each side in front, below the mouth, is a small, solid, rounded protuberance, occasionally wanting. The oecium is broad, prominent and flattened in front, the upper margin forming a thickened and smooth band, a more or less regular row of white-bordered pores along the inner margin of the band, and others scattered over the anterior surface. The peristome of the oecial cells is produced as a flat pointed process from each side to meet in the centre, forming an arch over the suboral sinus. The front of the oecium in perfect specimens is usually of a bright-brown colour, forming a marked contrast to the white rim. In others, however, the bright colour is lost.

I have no doubt this is identical with *S. lucida*, Hincks (Ann. and Mag. Nat. Hist., March, 1885).

The other form, which may be named var. *avicularis*, has an elliptical avicularium placed obliquely below or to one side of the oral sinus; below or supporting the avicularium there is usually a small, irregular, glassy, calcareous mass, extending partly down the centre of the cell, and frequently with one or more shining nodules comparable to the two suboral processes in the normal form. The peristome in the barren cells is usually produced on

one side. The oœcia are more prominent superiorly, the peristomial arch thicker and stronger, and the surface occasionally traversed by distinct lines. Some oœcia are coloured a bluish purple, with the margin and peristome a dead-white.

S. dædala, McG. Robe.

S. hyalina, Linn. sp., var. *tuberculata*. Robe.

S. Ridleyi, McG.

S. Smeatoni, n. sp. Figs. 3 and 3a. Zoarium bilaminate. Zoœcia in longitudinal lines, separated by furrows, at the bottom of which is a narrow raised line, elongated, raised in the centre, with numerous small perforations; mouth arched above, lower lip with a wide sinus and a minute denticle on each side. Operculum with a narrow membranous fringe. Oœcia large, granular, traversed by depressed lines, orifice wide, the lower lip with a broad shallow sinus.

The zoœcia at the edge of the zoarium are much elongated, farther back becoming shorter. They are arranged more or less in lines, separated by furrows. The surface is covered with small perforations, frequently arranged in a line towards each margin and one down the centre. They are raised in the middle, and below the mouth there is usually a smooth nodule or umbo. The sinus in the lower lip is wide, tolerably deep, with the angle rounded. On the oœcia there is generally a short, depressed line extending vertically upwards and bifurcating so as to divide the surface into three elevated portions. On the older parts of the zoarium the separating furrows are nearly obliterated.

HIPPOTHOA, Lamx.

H. divaricata, Busk.

PETRALIA, McG.

P. undata, McG.

PORELLA, Gray.

P. papillifera, McG.

P. marsupium, McG.

PORINA, D'Orbigny.

P. larvalis, McG. Semaphore.

MUCRONELLA, Hincks.

M. vultur, Hincks.

M. tricuspis, Hincks.

M. diaphana, McG. Brighton.

M. excavata, McG. This species is identical with *M. præstans*, described by Hincks from New Zealand. The specimen figured in the Zoology of Victoria had no avicularia, which, in fact, are frequently absent.

RHYNCHOPORA, *Hincks*.*R. bispinosa*, Johnston, sp. Semaphore.

FAMILY CELLEPORIDÆ.

CELLEPORA, *Fabricius*.*C. bispinata*, Busk.*C. tridenticulata*, Busk.*C. prolifera*, McG.SCHISMOPORA, *McG.**S. signata*, Busk, sp.*S. munita*, McG., sp.

FAMILY RETEPORIDÆ.

RETEPORA, *Imperato*.*R. porcellana*, McG.*R. monilifera*, McG.form, *munita*, McG.form, *umbonata*, McG.*R. granulata*, McG.

SUBORDER CYCLOSTOMATA.

FAMILY IDMONEIDÆ.

HORNERA, *Lamx.**H. foliacea*, McG.

FAMILY TUBULIPORIDÆ.

ENTALOPHORA, *Lamx.**E. australis*, Busk, sp. Encounter Bay.

FAMILY DISCOPORELLIDÆ.

LICHENOPORA, *Defrance*.*L. echinata*, McG.*L. reticulata*, McG. Brighton.

SUBORDER CTENOSTOMATA.

FAMILY VESICULARIIDÆ.

AMATHIA, *Lamx.**A. bicornis*, Tenison-Woods. Robe.

The following are additional localities for species mentioned in previous paper :—

Catenicella ventricosa, Busk. Robe.*C. crystallina*, Wyo. Thoms. Port Elliott.

Calpidium ponderosum, Goldst., sp. Aldinga.
Cellularia cuspidata, Busk. Encounter Bay.
Scrupocellaria scruposa, Busk. Encounter Bay.
Menipea crystallina, Busk, sp. Robe.
Bugula cucullata, Busk. Lacepede Bay.
B. dentata, Lamx. Robe.
B. neritina, Linn., sp. Brighton.
Carbasea pisciformis, Busk. Kangaroo Island.
Flustra denticulata, Busk. Encounter Bay.
Electra flagellum, McG. Brighton.
Thairopora Woodsii, McG. Semaphore.
T. Jervoisii, Hincks, sp. Brighton.
Cribrilina monoceros, Busk. Brighton.
Schizoporella schizostoma, McG. Brighton.
Mucronella Elleri, McG. Glenelg.
Smittia trispinosa, Johnston, sp. Brighton ; Semaphore.

EXPLANATION OF PLATE I.

- Fig. 1. *Membranipora praelonga*, $\times 20$.
 Fig. 2. *Biflustra jugalis*, group of zoecia $\times 45$. Fig. 2a. Single zoecium, showing the oral flap, $\times 45$.
 Fig. 3. *Schizoporella Smeatoni*, $\times 45$, showing zoecia and oecium. Fig. 3a. Operculum, $\times 100$.
 Fig. 4. *Schizoporella Maplestoni*, normal form, $\times 45$.
 Fig. 5. *Id*, var. *avicularis*, showing suboral avicularium and thickening of peristome in ordinary zoecia. Fig. 5a. Another zoecium and oecium from the same specimen. All $\times 45$.